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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,984	07/21/2003	Anthony Michael Galea	PGA-202	5531

7590

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EXAMINER
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TOWA, RENE T

ART UNIT	PAPER NUMBER
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3736

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/623,984	GALEA, ANTHONY MICHAEL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Rene T. Towa	3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/21/2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Canada on 07/31/2002. It is noted, however, that applicant has not filed a certified copy of the 2,396,202 application as required by 35 U.S.C. 119(b).

### ***Oath/Declaration***

2. Applicant has not given a post office address anywhere in the application papers as required by 37 CFR 1.33(a), which was in effect at the time of filing of the oath or declaration. A statement over applicant's signature providing a complete post office address is required.

### ***Drawings***

3. The drawings are objected to because figure 12 is not provided as described on page 16, lines 11-13. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the

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drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 28 (fig. 1), 64 (fig. 2A), 88, 90 (fig. 2B), 166 (fig. 6A), 264, 266, 268 (fig. 9A), 298, 300 (fig. 10A). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

5. The disclosure is objected to because of the following informalities:

In regards to page 25, line 8, the phrase "The timing factor is derived from the sEMG data," apparently should be replaced with --The timing factor is derived from the sEMG and dynamometer data-- per page 13 (lines 6-11), page 16 (lines 22-25), page 18 (lines 18-22), and page 25 (lines 10-13).

In regards to page 20, line 16, "16" should read --18--.

In regards to page 40, line 17, "302" should read --300--.

Appropriate correction is required.

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Objections***

7. Claims 3-4 are objected to because of the following informalities:

In regards to claim 3, at line 3, delete "as described in claim 1" as the limitation is redundant. Claim 3 depends on claim 2, which in turn depends on claim 1.

In regards to claim 4, at line 4, "therfor" should be --therefor--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 2, 3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claim 2, "thereof" at line 9 renders the claim indefinite because it is unclear what the limitation is intended to refer to (for example, the force factor programs or the first and second factors).

Claim 3 recites the limitation "said correlative value" in line 3. There is insufficient antecedent basis for this limitation in the claim. There is no correlative value recited in claims 1-3 prior to this recitation.

Claim 5 recites the limitations "said comparator," "said muscular force factor," and "said sEMG factor" in lines 2-3, line 5, and line 8, respectively. There is insufficient antecedent basis for these limitations in the claim. There is no comparator, muscular force factor or sEMG factor recited in claims 1 or 5 prior to these recitations.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Costello et al. (US Patent No. 5,964,719).

Referring to claim 1, Costello et al. discloses a biofeedback system wherein muscle force and EMG activity can be simultaneously collected, processed and

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displayed in real-time (see fig. 1 and 5, or paragraphs 13 and 18 (lines 1-5) of the "Brief Summary").

The biofeedback system includes a muscular force detector (11, 13) for sensing and measuring the force exerted by muscles upon a predetermined body movement and for generating a first signal output proportional to the force exerted; an electromyograph (7-9) for sensing and measuring the bioelectric EMG activity of the muscles simultaneously with the force detector and for generating a second signal output proportional to the EMG; an interface device (2) for processing the signal outputs and providing at least two factors to a computer (17) with a display (16).

Still referring to claim 1, it is noted that the "index-forming program" carries no patentable weight due to its intangible nature (e.g. it involves no more than a manipulation of an abstract idea). Consequently, the computer of Costello et al.'s biofeedback system is structurally capable of exhibiting the applicant's basic inventive concept.

The examiner suggests that applicant amend the claim at lines 17-19 to recite a computer-readable medium having an index-forming program code embodied therein for causing a computer to combine the factors in a predetermined manner to provide a sincerity index having a lower limit and an upper limit.

Referring to claim 2, Costello et al. discloses a biofeedback system wherein muscle force and EMG activity can be simultaneously collected, processed and displayed in real-time (see fig. 1 and 5, or paragraphs 13 and 18 (lines 1-5) of the "Brief Summary"). It is noted in the preamble that the "index-forming program," which refers

to an abstract idea or a manipulation of abstract ideas, is generally not provided any patentable weight (see claim 1). The computer of Costello et al. is fully capable of performing this function.

Now referring to claim 3, Costello et al. discloses a biofeedback system wherein muscle force and EMG activity can be simultaneously collected, processed and displayed in real-time (see fig. 1 and 5, or paragraphs 13 and 18 (lines 1-5) of the "Brief Summary"). It is noted that the "correlative value" and the "index," refer to an abstract idea or a manipulation of abstract ideas, which are generally not provided any patentable weight. Furthermore, the computer (17) of Costello et al. is fully capable of performing this function.

Referring to claim 4, Costello et al. discloses a biofeedback system wherein muscle force and EMG activity can be simultaneously collected, processed and displayed in real-time (see fig. 1 and 5, or paragraphs 13 and 18 (lines 1-5) of the "Brief Summary"). It is noted in the preamble that the "said index," which refers to an abstract idea or a manipulation of abstract ideas, is generally not provided any patentable weight. Furthermore, the computer (17) of Costello et al. is fully capable of performing this function.

Referring to claim 5, Costello et al. discloses a biofeedback system wherein muscle force and EMG activity can be simultaneously collected, processed and displayed in real-time (see fig. 1 and 5, or paragraphs 13 and 18 (lines 1-5) of the "Brief Summary"). The interface unit (2) of Costello et al. includes means for analyzing the

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first and second outputs to generate in-process calculation of a muscular force factor and a sEMG factor.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6,185,451 to Richardson et al. discloses a biofeedback system capable of multiple inputs among which an EMG signal. Richardson et al. teaches the real-time collection, processing, display and computation of a "quotient" by a programmable processor (See Paragraph 5 to 11 of Detailed Description of the drawings, see figure 1 and 2).

US Patent No. 3,916,876 to Freeman discloses a method for simultaneously measuring, recording, and displaying the tension in two antagonist muscles (see fig. 1).

US Patent No. 4,148,303 to Cohen compares muscle activities of bilateral synergist muscles but also establishes a set of indices that are subjective to the patient (not based on anthropomorphic data or population samples).

Any one of US Patents No. 5,505,208 to Toomim et al., 4,882,677 to Curran, 5,662,118 to Skubick, and 5,184,628 to Shah et al. discloses a method to determine muscle injury or dysfunction using some form of index.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rene Towa whose telephone number is (571) 272-8758. The examiner can normally be reached on M-F, 8:00-04:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RTT

  
CHARLES MARMOR  
PRIMARY EXAMINER